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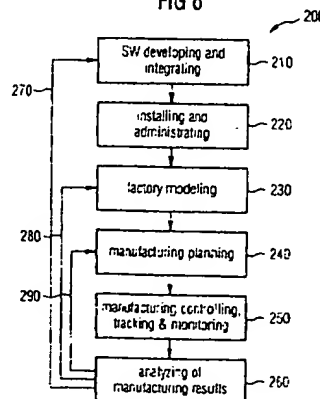
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(54) Computer integrated manufacturing techniques

(57) The present invention provides a novel distributed factory system framework including a novel factory automation lifecycle (200) having lifecycle activities for SW developing and integrating (210), installing and administering (220), factory modeling (230), manufacturing planning (240), manufacturing controlling, monitoring and tracking (250) and analyzing of manufacturing results (260). The factory lifecycle comprises framework components. The distributed factory system framework also includes application components and SW building blocks. The framework components are adapted for managing the application components, while the application components are utilized to provide instructions for managing a process such as a wafer fab. The building blocks are adapted for forming or modifying framework and application components. The distributed factory system framework provides computer implemented

methods for integrating processing systems and facilitates process and equipment changes.

FIG 6



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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 5 495 417 A (MIURA KAZUYUKI ET AL) 27 February 1996 (1996-02-27) * column 13, line 41 - column 15, line 35 * * column 39, line 60 - column 47, line 67; figures 1-7, 89-96 *	1, 13, 17, 19-24	G05B19/418 G05B17/02
X	US 5 657 254 A (DUROSS RONALD R ET AL) 12 August 1997 (1997-08-12) * column 4, line 66 - column 7, line 61; figures 1-4 *	15	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G05B
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 27 September 2001	Examiner Helot, H
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EP 00 11 5577

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5495417 A	27-02-1996	JP 5266029 A	15-10-1993
		JP 6110894 A	22-04-1994
		JP 5216896 A	27-08-1993
		JP 3140877 B2	05-03-2001
		JP 6252236 A	09-09-1994
		JP 3139867 B2	05-03-2001
		JP 6260380 A	16-09-1994
		JP 6176994 A	24-06-1994
		US 5694325 A	02-12-1997
US 5657254 A	12-08-1997	JP 5151231 A	18-06-1993
		US 5508947 A	16-04-1996
		US 5220517 A	15-06-1993
		CA 2050247 A1	01-03-1992
		CA 2165847 A1	01-03-1992
		CA 2194855 A1	01-03-1992
		US 5329463 A	12-07-1994
		US 5497316 A	05-03-1996

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